



Mini-Cube Home Theater Package

Model MNCS / MNCSB

Mini-Cube Speakers

Model MNC / MNCSB

Instruction Manual

INTRODUCTION

M&S Systems is introducing cube speakers (MNC) and a cube speaker package for Home Theater applications (MNCS) offering quality sound at an affordable price. The compact size allows for installation in any room without being intrusive to your decor. These products also offer many features, including the following:

- 360° swivel speaker allow for full area coverage
- A complete frequency range when a subwoofer is added
- Ceiling or wall mount
- Compact design
- Shielded magnets for the cubes and center channel
- Mounting bracket and mounting screws for the cubes

DESCRIPTION

MNC units have dual 2-1/2", two-way speakers with paper cones. Each package consists of one pair of speakers per MNC which are available in white (MNC) and black (MNCSB) matte finishes.

Frequency Response	250 Hz to 15 kHz
Maximum Power Rating	70 Watts
Continuous Power Rating	35 Watts
Impedance	4 Ohms
Height	6.5 "
Width	3.5 "
Depth	4.5 "
Weight	2.33 lbs.

The center channel for the Mini-Cube Home Theater Package has dual 4" speakers with polypropylene cones and a 1/2" polycarbonate dome tweeter. It is available in a black matte finish.

Frequency Response	250 Hz to 15 kHz
Maximum Power Rating	70 Watts
Continuous Power Rating	35 Watts
Impedance	6 Ohms
Height	5.4 "
Width	14.5 "
Depth	5.9 "
Weight	8 lbs.

The subwoofer for the Mini-Cube Home Theater Package has an 8" active woofer. It is available in a black matte finish.

RMS Power Rating	100 Watts
Frequency Response	40 Hz to 350 Hz
Crossover	40 Hz to 180Hz (Adjustable)
Controls	Power, Volume, Crossover Frequency, Phase
Connections	RCA Jacks and Spring Terminals
Height	13.3 "
Width	9.8 "
Depth	13.7 "
Weight	20 lbs.

UNPACKING YOUR SPEAKERS

After carefully unpacking your speakers, the carton and the packing material should be saved for possible use later. If any speaker appears to be damaged, do not attempt to repair or to connect the unit to the amplifier. Repack the speaker and notify your distributor or M&S Systems for replacement or repair.

SPEAKER PLACEMENT

The cube units can be mounted on the ceiling or walls of the room, therefore, many combinations are possible. The MNC or the front and rear cube speakers of the MNCS package should be separated by 6 to 8 feet for good stereo separation. They should not be any closer than 2 feet to any adjacent surface (wall or ceiling). The cube brackets should be attached to a stud or mounted anchor with bolts to provide secure mounting.

NEVER MOUNT THE BRACKETS TO SHEETROCK WITHOUT SOME TYPE OF ANCHOR. The placement of the center channel and the subwoofer (MNCS system only) are not as critical. The center channel is best located on top of the TV cabinet or on a shelf above the TV. The subwoofer should be placed near a corner at the front or rear of the room for best bass sound.

The MNC unit is designed with a swivel joint between the two speakers. Each speaker can be aimed individually. The unit also comes with a mounting bracket for attachment to a wall or ceiling. The bracket screws into the threaded socket on the bottom of the unit, and may be adjusted so that the speakers point in the desired direction. (See figure 1)

Note: When mounting speakers from wall surfaces additional tightening of the hex screw may be required.

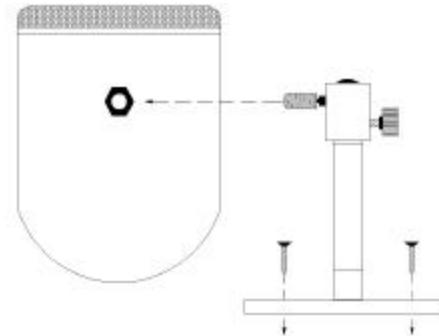


Figure 1

SPEAKER CONNECTONS

1. Turn off the receiver or amplifier and unplug it from the power outlet.
2. Use a 2-conductor 16-gauge speaker wire (M&S part number MS16X) for best results.

Note: Remove about 2 inches of the outside jacket from both ends of the wire then strip approximately $\frac{1}{2}$ inch of the insulation from each conductor at the speaker end. Use the recommended strip length as specified in the amplifier/receiver installation manual for the other end.

3. Proper connection of the speaker wire is very important to ensure full range sound. Most amplifiers and speakers use red (for +) and black (for -) as the polarity markings. Using the MS16X wire makes connections easy. The red wire should be connected to the red terminal and the black wire to the black terminal at the speakers and the amplifier.

Note: When using another type of wire, such as a flat ribbon, you will need to determine how the wire denotes one lead from another. This usually takes the form of a rib or a color stripe in the insulation.

4. Repeat these steps for connection of all speakers to the system. Typical diagrams are shown for the MNC and MNCS systems. (See figures 2 through 4.)

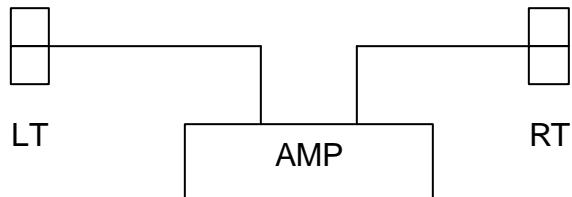


Figure 2

5. The MNCS system may be connected two ways depending on the amplifier used with the system. The major difference is the subwoofer connections.
- An amplifier with a subwoofer output connection, usually a RCA type connector would be the preferred connection when used with the MNCS subwoofer (see figure 3). A shielded audio cable is required for this setup with a Y-adaptor connecting the audio cable to left and right "LINE INPUT" on the subwoofer.

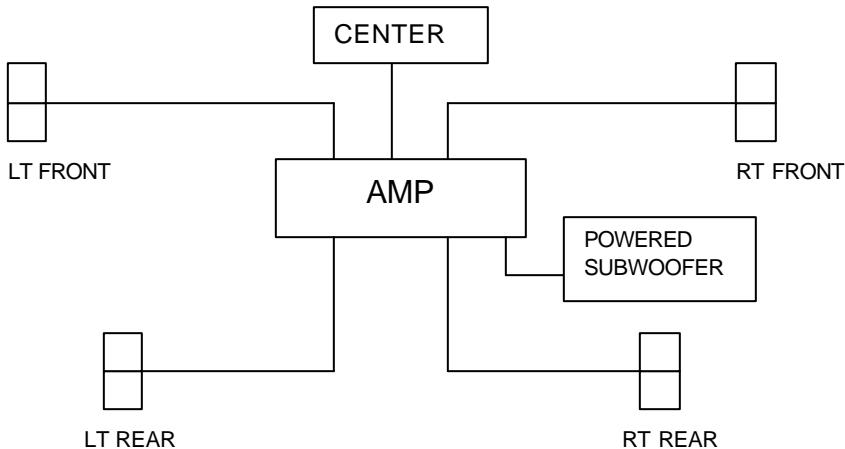


Figure 3

- The other option requires the front left and right speaker cables be routed from the amplifier through the subwoofer to the speakers. The wires from the amplifier should be connected to the "HIGH LEVEL INPUT" and the cables going to the speaker should be connected to the "HIGH LEVEL OUTPUT" on the subwoofer (see figure 4).

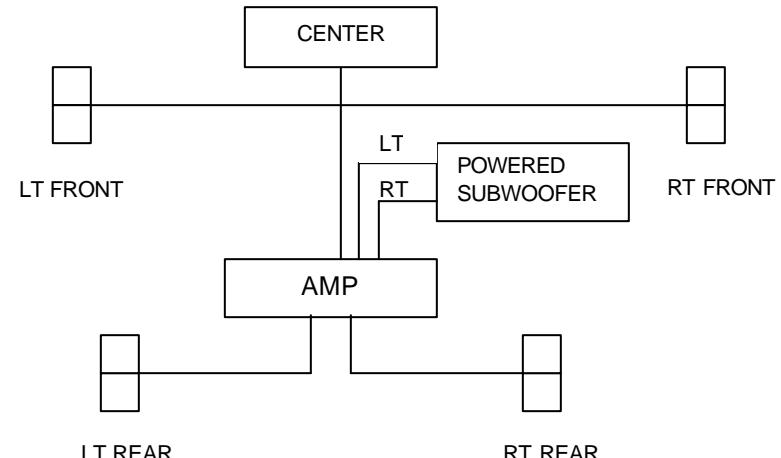


Figure 4

6. **IMPORTANT!** Make sure there are no loose strands of wire touching each other across the speaker or amplifier terminals. This can create a short circuit and damage your electronics.
7. Plug your amplifier or receiver in, turn it on, and enjoy your new music system.

SETTING UP THE SYSTEM

Use the settings on the amplifier/receiver for the MNC. If a separate subwoofer is being added, the volume and crossover frequency will need to be set (see notation under MNCS setup).

The MNCS system will require setting up the front, center, and rear speakers as recommended in your amplifier/receiver instruction manual. The subwoofer provided with the system allows setting of the phase, volume, crossover frequency, and an auto power control.

- The phase switch is set for the best bass sound. Switch between the 0-180 position until the bass is loudest. In some applications, there may be no noticeable difference and in this case leave the switch in the 0 position.
- The crossover frequency can be set between 40 and 180Hz. It is recommended that the control be set to 180Hz with the mini-cube speakers.
- The volume control should be set to the desired bass level for the system.

- The power switch can be set to OFF-AUTO-ON. The OFF position disables the subwoofer completely. The AUTO position puts the subwoofer in a standby mode (low power) when the system is not in use. When a signal is applied, the subwoofer is automatically turned on. The ON position is a constantly ready with or without a music signal. The AUTO position is recommended for most applications.

SERVICE & TROUBLESHOOTING

M&S Systems is committed to producing high quality products for the home. If you have any questions or problems with the speaker systems or the system is not operating properly, contact your M&S installer or call M&S Systems at (800) 366-9422.

WARRANTY

M&S Systems Limited 2-Year No-Fault Product Warranty

M&S Systems warrants for 2 years all products to be free of defects (M&S Systems honors the 10-Year No-Fault warranty for AirVac Gold power units. See section below). The warranty period begins from either (1) the date of "first user" purchase of this product or (2) the first close of escrow date on a residence in which this new product was originally installed. This warranty extends to the original user of the product and to each subsequent owner of the product during the term of this warranty. M&S Systems will repair or replace, at its option, parts and materials at no charge. Parts supplied under this warranty may be new or rebuilt at the option of M&S Systems.

If, during the limited warranty period, it appears as though this product contains a defect which is covered by this limited warranty, call our toll free service number before dismantling the product (1-800-877-6631). Remember to attain a Return Authorization Number (RAN) before returning any product to M&S Systems. Send this product freight pre-paid and insured to our service center for warranty repair. You will be advised on shipping instructions when you call the toll free service number. M&S Systems will return the repaired product freight pre-paid within the U.S.A. The installing dealer or distributor may assist you, at your choice and expense, with returning product for repair. Please include a brief description of the problem and a dated proof-of-purchase receipt with any product that is returned for warranty repair. **ANY PRODUCT RETURNED WITHOUT A RETURN AUTHORIZATION NUMBER WILL BE REFUSED.**

This limited warranty is in lieu of any other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular purpose or otherwise, and of any other obligations or liability on the seller's part. This limited warranty does not cover damage caused by improper installation, the violation of applicable building or electrical codes or the use of non-M&S/non-AirVac wire (excluding structured wire packages), cable (excluding structured wire packages) or wall housings. This limited warranty applies only to products installed in a private residence.

Under no circumstances shall the seller be liable for consequential, incidental or special damages arising in connection with use, or inability to use this product. In no event shall seller's liability, for breach of warranty, breach of contract, negligence, or strict liability, exceed the cost of the product covered hereby. No person is authorized to assume for us any other liability in connection with the sale of this product.

Some states do not allow the exclusion or limitation of consequential, incidental or special damages, so the above limitation or exclusion may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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